



پوهنتون کاردان
KARDAN UNIVERSITY

Course Catalogue

Master's in Construction
Project Management

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Mission

To educate and inspire competent and professional managers who demonstrate the highest professional standards through exemplary leadership, technical understanding and quality assurance towards the design and management of construction industry processes.

Objectives

This Program aims to provide you with the highly sought-after knowledge and skills needed to manage construction process, particularly collaborating with numerous stakeholders.

The Master of Construction Project Management will help you:

- Gain a broad foundation in technical knowledge and managerial skills for a rewarding career in construction management.
- Understand and apply the key project management principles including managing, motivating and leading within the context of construction projects.
- Have a high level of technical understanding in relation to the construction projects' operational requirements, management, evaluation, risk mitigation and contract management.
- Acquire knowledge in finance, contracts and other areas critical to delivering large-scale projects.
- Understand the major issues involved with collaborating and managing multiple stakeholders and applying academic knowledge to inform objective decision-making
- Learn how information technology can increase productivity and communicate results obtained through analysis, design and management of all resources
- Develop interpersonal skills, enhancing the ability to manage large and small teams and collaborate effectively with a wide range of stakeholders.

Academic Programs

The Construction project management at Kardan University offers a master of construction project management (MCPM) degree in, Degree Program to be ordinarily of 2 academic years (=4 Semesters), with the year being divided into two Semesters of 16 weeks each for course work.

The Master of Construction Project Management (MCPM) will be delivered in English language over a period of two years on a full-time basis at Kardan University's. The program will be implemented through the credit-based system, requiring students to complete 42 credits in order to graduate. The program will be delivered through classroom teaching and integration of modern pedagogy, Outcome base education, technology and lab experiments, ensuring an applied approach. Students will gain theoretical knowledge and practical skills to manage the myriad of challenges facing the construction industry, including quality assurance, contract management, risk assessment and environmental factors. Students can pursue the Master of Construction Project Management either to embark upon a career in the construction industry or develop their expertise in their current functions.

Intended Learning Outcomes

Graduates with an (MCPM) Master of Construction Project Management from Kardan University will be able to:

1. Demonstrate technical understanding of design concepts and construction processes in accordance with the industry standards.
2. Demonstrate an advanced understanding of the construction project management body of knowledge, including established theories and recent developments relevant to the discipline or professional field.
3. Apply construction project management principles and practices to new or complex environments.
4. Plan and execute a research-based or professional project, undertake a capstone experience or complete a piece of work that involves substantial scholarship, particularly in the construction project management context.
5. Critically evaluate contemporary debates and literatures in construction project management.
6. Demonstrate a high level of personal autonomy and accountability in the acquisition or application of knowledge or skills.
7. Demonstrate an understanding of, and the ability to apply, the principles of teamwork and collaboration.
8. Demonstrate cultural awareness, environmental and social responsibility, and a respect for diversity.
9. Apply technical skills and knowledge in support of planning, analyzing, performance assessment and resolving construction challenges.
10. Design, manage and evaluate a quality construction projects thoroughly while successfully meeting budget, schedule, safety and environmental requirements.

Curriculum Design and Development

Kardan University is renowned for its academic excellence and design of curriculum methodologies that directly respond to the national market needs and incorporate international best practices and trends. The MCPM program will be an integral part of the Faculty of Engineering and Technology at Kardan University led by the Faculty Dean. The program will be designed and delivered under the direct oversight of the Kardan University's Academic Council comprising of the University Chancellor, Vice Chancellor – Academics, Deans, Heads of Departments and relevant senior directors.

The courses will emphasize the nurturing of both technical and soft skills culminating with an intensive capstone project. Full course catalogue will be provided upon request.

Curriculum Structure for Master of Construction Project Management

Graduation Requirements for MCPM

| No. | Category | Criteria |
|-----|-----------------------|------------|
| 1 | Credit Requirement | 42 Credits |
| 2 | Project and Defense | Pass |
| 3 | Professional Seminars | 6 Hours |

Proposed MSc Construction Project Management (2 years) Program

| | |
|--------------------|--|
| No. of Courses | 10 + Research Project |
| Credit Hours | 42 |
| Duration | 2 Years (4 Semesters) |
| Entry Requirements | BSc relevant engineering, science or management disciplines 4-year bachelor degree |

Furthermore, the interdisciplinary nature of the program, as illustrated below, will broaden students' understanding of numerous subjects harnessing their knowledge, skills and abilities related to critical sectors.

The students are required to complete 12 subjects during their MCPM program, which include core, elective subjects, and project.

Summary of Credits Requirement for MCPM

| No. | Category | Courses | Credits | Percentage |
|--------------|-----------|---------|-----------|-------------|
| 1 | Core | 10 | 30 | 72% |
| 2 | Electives | 02 | 6 | 14% |
| 3 | Project | 01 | 6 | 14% |
| Total | | | 42 | 100% |

Capstone Project

| No. | Course Name | Pre-requisite | Credits |
|----------------------|-------------|---------------|----------|
| 1 | Project | | 6 |
| Total Courses | | | 1 |
| Total Credits | | | 6 |

The MCPM program is designed for candidates having Bachelor degree in a relevant subject, such as the built environment, relevant engineering, science or engineering management disciplines. Who want to enhance their professional managerial skills the program provides opportunities to learn special management techniques required to excel in the challenging and rapidly changing world.

List of courses

| Core Courses Master of Construction Project Management | | | | |
|---|-------------|--|---------------|-----------|
| No. | Course Code | Course Name | Pre-requisite | Credits |
| 1 | CM-501 | Construction Project Cycle Management | | 3 |
| 2 | CM-502 | Construction Project Estimation and Cost Management | | 3 |
| 3 | CM-503 | Construction Integration Management | | 3 |
| 4 | CM-504 | Project Stakeholder Management | | 3 |
| 5 | CM-505 | Project Planning and Scheduling | | 3 |
| 6 | CM-506 | Construction Project Contract & Procurement Management | | 3 |
| 7 | CM-507 | Construction Project Quality Management | | 3 |
| 8 | CM-601 | Project Environmental Management | | 3 |
| 9 | CM-602 | Project Control Techniques | | 3 |
| 10 | CM-603 | Project Monitoring and Evaluation | | 3 |
| Total Courses | | | | 10 |
| Total Credits | | | | 30 |

| Elective Courses Master of Construction Project Management | | | | |
|---|-------------|---|---------------|----------|
| No. | Course Code | Course Name | Pre-requisite | Credits |
| (Any Two courses may be chosen) | | | | |
| 1 | PM-611 | Project Conflict and Negotiation Management | | 3 |
| 2 | PM502 | Project Human Resource Management | | 3 |
| 3 | PM-614 | Disaster Management | | 3 |
| 4 | PM-616 | Project Strategic Management | | 3 |
| 5 | CM-508 | Project Communication & Claim Management | | 3 |
| 6 | CM-509 | Building Services and O&M Management | | 3 |
| 7 | CM-604 | Project Risk Assessment and Management | | 3 |
| 8 | CM-510 | Construction Technology | | 3 |
| 9 | CM-605 | Sustainability in Civil Engineering | | 3 |
| 10 | CM-606 | International Project Management | | 3 |
| Total Courses | | | | 2 |
| Total Credits | | | | 6 |

| Capstone Project Master of Construction Project Management | | | | |
|---|-------------|------------------|---------------|----------|
| No. | Course Code | Course Name | Pre-requisite | Credits |
| 1 | PRJ- 699 | Capstone Project | | 3 |
| Total Courses | | | | 1 |
| Total Credits | | | | 6 |

Semester Wise Breakup of Courses for 42 Credit Hours

There are Ten core and two elective courses in three semesters, while fourth semester has a Capstone Project.

| Road Map for MCPM (42 Credits) | | | | | |
|--------------------------------|---|---------|-------------|--|---------|
| | Semester I | | | Semester II | |
| Course Code | Course Title | Credits | Course Code | Course Title | Credits |
| CM-501 | Construction Project Cycle Management | 3 | CM-505 | Project Planning and Scheduling | 3 |
| CM-502 | Construction Project Estimation and Cost Management | 3 | CM-506 | Construction Project Contract & Procurement Management | 3 |
| CM-503 | Construction Integration Management | 3 | CM-507 | Construction Project Quality Management | 3 |
| CM-504 | Project Stakeholder Management | 3 | | Elective I | 3 |
| | Semester III | | | Semester IV | |
| Course Code | Course Title | Credits | Course Code | Course Title | Credits |
| CM-601 | Project Environmental Management | 3 | PRJ- 699 | Capstone Project | 6 |
| CM-602 | Project Control Techniques | 3 | | | |
| CM-603 | Project Monitoring and Evaluation | 3 | | | |
| | Elective II | 3 | | | |